



# ASA-6A USER MANUAL

AUDIOSCOPE  
ENGINEERING CO.



POWERED BY  
**SONIC TRUTH**  
MADE IN THE USA

This manual provides general information, preparation for use, installation, and operating instructions for the Audioscope ASA-6A.

Audioscope Engineering Co.  
Florida  
Made in the U.S.A.





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A WORD FROM THE AUDIOSCAPE FAMILY.

**Thank you for purchasing the ASA-6A from  
AudioScape Engineering!**

**The ASA-6A is our more-real-than-recreated vision for the BA6A broadcast limiting amplifier introduced by RCA in 1951. Renowned for its super-thick and weighty tone, its nine tube topology was considered an economical design back then.**

**Excellent for fattening up guitars and snares. The tone of the ASA-6A is creamy and incandescent. Nine total tubes, super-beefy Hammond transformers throughout and a superb box tone; vintage tube compression doesn't get any better than the ASA-6A.**

**Let's go exploring!**



# IMPORTANT SAFETY INSTRUCTIONS



- **Water and Moisture** - Do not use the unit near any source of water or in excessively moist environments.
- **Object and Liquid Entry** - Care should be taken so that objects do not fall, and liquids are not spilled, into the enclosure through openings.
- **Ventilation** - When installing the unit in a rack or any other location, be sure there is adequate ventilation. Improper ventilation will cause overheating and can damage the unit. Open racks are preferred to let the case vents breathe and give adequate heat dissipation
- **Heat** - The unit should be situated away from heat sources, or other equipment that produce heat.
- **Power Sources** - The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the unit.
- **Power Cord Protection** - AC power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit. Never take hold of the plug or cord if your hand is wet. Always grasp the plug body when connecting or disconnecting it.
- **Non-use Periods** - The AC power supply cord of the unit should be unplugged from the AC outlet when left unused for a long period of time.







1. **Input** - Extends the range of Input pad and allows precise adjustment of Input Level
2. **HPF Switch** - 120 Hz Side-chain HPF for more nuanced triggering
3. **Threshold** - Sets the level where compression occurs
4. **Attack** - Continuously variable; fully counter-clockwise (fastest setting) is the stock BA6A setting. Clockwise can get slower attack times and add some punch
5. **Release** - Continuously variable; center position is stock. Counter-clockwise makes the release speed faster and more modern, clockwise from center makes it even slower. Release times become much slower when BAL-Limit control is set to DUAL mode, timings are program dependent
6. **BAL-Limit** - Sets attack and release time constants. SINGLE is a very fast attack, DUAL is very slow release. Off bypasses the compression circuit completely but still passes signal through the ASA-6A's tube and transformer compliment
7. **NFB Toggle** - Reduces the negative feedback and drives the front-end with another +5dB of gain, saturating the input and output transformers, and lighting up its gain-stage tubes
8. **Output** - Sets the overall output level of the ASA-6A
9. **VU Meter** - Vintage Correct Meter indicates amount of gain reduction in dB

# REAR PANEL



(1) **AC Power Connector** - Insert 120V IEC power cable only into this connector. For EU wall voltages, please email for a recommendation for a suitable external wall converter.

(2) **XLR OUTPUT** - A balanced XLR connector carrying the line-level output signal of the V-Comp+. This signal will normally be routed via a patchbay to a channel or bus insert return.

(2) **Stereo LINK connection port** - Each unit can be stereo-linked with another via a simple TS instrument cable. Simply put, whichever unit is compressing harder becomes the master unit for linking.

(3) **XLR INPUT** - Connect line-level input signal to this balanced XLR connector. Pin 2 is wired positive (hot). This signal will normally be arriving via a patchbay from a channel or bus insert send.



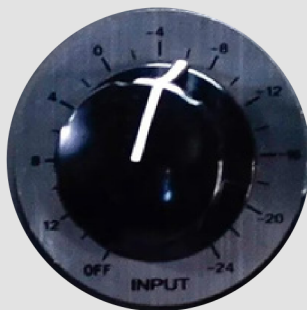


# ★ FEATURES

This variable-mu design increases its ratio as the input gain increases, which makes the ASA-6A a smooth and musical choice for vocals or bass guitar.

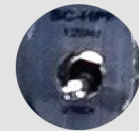
Flipping the front-panel NFB switch, a modern-day upgrade for this 70-year-old classic, will push the input gain by another 5dB, saturating the input and output transformers and really lighting up its gain-stage tubes. Excellent for fattening up guitars and snares.

The tone of the ASA-6A is creamy and incandescent.



### INPUT

Raise Input level for more compression and coloration



### SC-HPF

120Hz Side-chain High-pass Filter



### THRESHOLD

Sets the level where compression occurs



### ATTACK

Fully counterclockwise (fastest setting) is stock. Turning clockwise can get slower attack times and add some punch



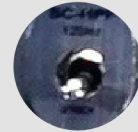
### RELEASE

Center is stock. Counterclockwise makes the release speed faster and more modern. Clockwise from center makes it even slower. Even slower when BAL-Limit set to DUAL



### BAL-LIMIT

OFF - bypasses compression and allows use of the V as a saturation device.  
SINGLE - Fast Attack  
DUAL - Slow release time



### NFB

NFB toggle switches between the original "Stock" mode and the new "Drive" mode, which boosts input gain by 5dB



### OUTPUT

Controls the overall output of the compressed signal



# TECH SPECS

## SPECIFICATIONS

Gain Reduction:	up to 40dB
Freq Response:	20Hz-20kHz
Noise:	-80dB +/-5
Gain:	30dB
Attack modes:	Variable
Release times:	Variable
Impedance in/out:	600Ω
Height:	3U
Depth:	9" (229mm)
Width:	19" (48cm)
Weight:	16 lbs
Power:	120V

### TUBE AND TRANSFORMER COMPLIMENT

- 6SK7 (x2)
- 6J7 (x2)
- 6H6
- OD3
- 6V6 (x2) Matched Pair
- 5R4
- Hammond Choke
- Hammond Filament Transformer
- Hammond Dual-primary Power Transformer
- Proprietary, Custom-Wound Input, Output and Interstage Transformers, All Sonically True to the Originals



## ADDITIONAL FEATURES

- Handcrafted in the USA
- NFB toggle switches between the original "Stock" mode and the new "Drive" mode, which boosts input gain by 5dB
- 3 Time-Constant options via the BAL-Limit rotary switch: Single or Dual, or Off, which bypasses the compressor entirely, but still passes a fat signal through all those tubes
- Custom 20 position stepped Input and Output Controls, tweaked for maximum usable range; allowing for countless saturation options
- Attack, Release and Threshold controls added with stock BA-6A designations on each scale plate
- 120 Hz Sidechain HPF for more nuanced triggering
- PIO AUDIO Capacitors
- Allen-Bradley carbon comp resistors in key areas of the signal path
- Period correct knobs
- Umber Gray front panel with vintage style scale plates
- Electronically Balanced +4dBu circuitry
- Custom stepped switches, Allen Bradley and Alpha pots
- Custom Vintage-Styled Lighted VU Gain-Reduction Meter
- Neutrik® XLR Input and Output Connectors
- Dual Primary 120V/240V Power Supply (prewired for region of purchase)







# FAQ

## COMMON QUESTIONS/ISSUES

**Q: The unit does not turn on.**

A: Make sure the unit is plugged in securely, the fuse is not blown(fuse located below IEC inlet).

**Q: There is a loud hum or intermittent signal**

A: Make sure all tubes and wire assemblies are secure in their respective positions by pushing down or reseating them accordingly

**Q: The unit turns on but no output signal is present**

A: After thoroughly checking common external issues(bad cables/channel interfaces/routing) start inspecting tubes and wire assemblies for any possible vulnerabilities





# STEREO LINK INSTRUCTIONS

The stereo link can be connected via the 1/4" jack on the back of each unit with a simple TS instrument cable. After that there is a process involving a sine wave signal and adjusting the stereo adjust trimpot which is located on the main PCB inside the case itself. This trimpot is 25 turn, blue in color and sits right in the middle of the PCB by itself.

To calibrate the units for stereo operation:

- Connect the units together with the TS cable
- Turn the Peak Reduction knobs counterclockwise (no compression).
- Set stereo adj trimmer on each unit to a clockwise position.(should likely be turned fully clockwise to begin with)
- Set each meter to read Gain Reduction.
- Adjust the Peak Reduction control on the left channel until approximately 5dB of gain reduction is achieved.
- Adjust the stereo adjust trimmer on the unit that shows the greatest amount of gain reduction until the gain reduction indications are equal.
- You still need to set the Peak reduction control the same when operating both units in link mode.





# CE EU DECLARATION OF CONFORMITY

## PRODUCT MODEL / PRODUCT:

PRODUCT: AS78 DUAL PEAK LIMITER

MODEL/TYPE: ASA-6A

SERIAL NOS. 12501 - 20000

## MANUFACTURER:

MANUFACTURER: AUDIOSCAPE ENGINEERING CO. LLC

ADDRESS: 1631 S. NOVA ROAD, BUILDING A, DAYTONA BEACH, FL 32119, USA

THIS DECLARATION OF CONFORMITY IS ISSUED UNDER THE SOLE RESPONSIBILITY OF THE MANUFACTURER.



THE OBJECT OF THE DECLARATION DESCRIBED IS IN CONFORMITY WITH THE RELEVANT UNION HARMONISATION LEGISLATION:

73/23/EWG	LOW VOLTAGE DIRECTIVE
89/336/EWG	EMC DIRECTIVE
DIN EN 55103-1&2	ELECTROMAGNETIC COMPATIBILITY OF AUDIO EQUIPMENT
2011/65/EU	THE RESTRICTION OF HAZARDOUS SUBSTANCES DIRECTIVE

THIS DECLARATION BECOMES INVALID BY MODIFICATION ON THE DEVICE WITHOUT APPROVAL.

THE TECHNICAL FILE IS AVAILABLE FROM THE MANUFACTURER AT THE ADDRESS ABOVE.

SIGNED FOR AND ON BEHALF: AUDIOSCAPE ENGINEERING CO. LLC

PLACE OF ISSUE: DAYTONA BEACH, FL, USA

DATE OF ISSUE: NOVEMBER 1ST, 2023

NAME: CHRIS YETTER

POSITION: OWNER

SIGNATURE:

THE PURPOSE OF THIS EG DIRECTIVE 2003/108/EG IS, AS A FIRST PRIORITY, THE PREVENTION OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE), AND IN ADDITION, THE REUSE, RECYCLING AND OTHER FORMS OF RECOVERY OF SUCH WASTES SO AS TO REDUCE THE DISPOSAL OF WASTE. PLEASE ASSIST IN KEEPING OUR ENVIRONMENT CLEAN.

